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UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/594,226	06/14/2000	Greg Richardson	5150-39900	7841

7590   07/11/2003

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EXAMINER
CAO, DIEM K

ART UNIT	PAPER NUMBER
2126	5

DATE MAILED: 07/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

	Application No.	**Applicant(s)**
Office Action Summary	09/594,226	RICHARDSON ET AL.
	Examiner	**Art Unit**
	Diem K Cao	2126

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *02 June 2003* .

2a) ☒ This action is **FINAL.**   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1,2,4-20,22-35 and 37-46* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1,2,4-20,22-35 and 37-46* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)	4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) ☐ Notice of Informal Patent Application (PTO-152)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .	6) ☐ Other: .

U.S. Patent and Trademark Office

PTO-326 (Rev. 04-01)   Office Action Summary   Part of Paper No. 5

DETAILED ACTION

1.   This Office Action is in response to the Amendment filed on 6/2/2003.

2.   Claims 1,2,4-20,22-35 and 37-46 remain in the Application. Applicant has amended

claims 1, 4-8, 20, 23-26, 34, and 37-41 and cancelled claims 3, 21, and 36.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

4.   Claims 1, 4-9, 14-15, 20, 22-29, 34, and 37-42 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Brandle et al. (U.S. 5,146,593) in view of Admitted Prior Art (APA).

As to claim 1, Brandle teaches (col. 2, line 58 – col. 4, line 2) calling an entry point

function (the service director 12 ... are called) of a share library (library), the entry point

function is associated with the program (internal services 18 ... include program and storage

management), the entry point function invoking the program in response to the calling entry

point function (When an application 16 ... and then calls it; col. 3, lines 36 - 54), the program

executing in response to the invoking the program (Any service returned by the procedure ...

stub procedure 14; col. 3, lines 51-58).

However, Brandle does not explicitly teach a graphical program in a shared library. APA

teaches executing a graphical program through a shared library (Previous approaches to enabling

graphical programs to be called using shared libraries ... graphical program; page 5).

It would have been obvious to modify the system of Brandle to including the graphical

program in a shared library so the graphical program could be use by multiple programs.

As to claim 4, Brandle as modified teaches the graphical program comprises executable

code included in the shared library (common libraries of procedures are ... function; col. 1, lines

35-44 and Typical system services ... program; col. 3, lines 19 - 35).

As to claim 5, Brandle as modified teaches calling the entry point function comprises

passing one or more parameters to the entry point function (When an application 16 ...

parameters passed thereto; col. 3, lines 36-50), the entry point function invoking the graphical

program comprises the entry point function passing the one or more parameters to the graphical

program (Once the service director 12 ... parameters to be passed thereto ... and then calls it;

col. 3, lines 51-58).

As to claim 6, Brandle as modified teaches (col. 3, lines 51-58) the graphical program

produces one or more output values (results returned from the procedure) to the entry point

function (are passed to the service director 12), the entry point function returns the one or more

output values (the service director 12 ... returns them to the stub procedure 14).

As to claim 7, Brandle as modified teaches the entry point function transforming the

parameter into a format expected by the graphical program (The service director 12 ... procedure

22-28; col. 6, lines 8-34), the entry point function passing the transformed parameter to the

graphical program (Once the forgoing ... and calls it 82; col. 6, lines 35-66).

As to claim 8, Brandle as modified teaches calling the entry point function comprises

passing a parameter to the entry point function (When an application 16 ... parameters passed

thereto; col. 3, lines 36-50), the entry point function copying the parameter into a location

expected by the graphical program (an implementation of one language may pass parameter and return results in registers ... stack; col. 3, line 59 – col. 4, line 2).

As to claim 9, Brandle does not explicitly teach calling the entry point function is performed by a particular thread, and the graphical program executes within the context of the particular. It is well known in the art thread is used carry out tasks, it should be obvious to have a thread in the system of Brandle to carry the task of calling and executing the graphical program.

As to claim 14, Brandle does not explicitly teach the shared library is one of a Windows DLL, a Unix shared library, and a Macintosh code fragment. APA teaches the shared library is one of a Windows DLL, a Unix shared library, and a Macintosh code fragment (page 4, line 26 – page 5, line 4).

As to claim 15, Brandle teaches calling the entry point function of the shared library is performed by a program created using a text-based programming language (The application program 16 ... C or COBOL; col. 3, lines 1-6).

As to claim 20, see rejection of claim 1 above. Brandle further teaches a computer including a CPU and memory (The software system ... desktop computer; col. 2, lines 50-54).

As to claims 22-27, see rejections of claims 4-9 above.

As to claims 28 and 29, see rejections of claims 14 and 15 above.

As to computer product claim 34, it corresponds to the method claim of claim 1.

As to claims 37-42, see rejections of claims 4-9 above.

5.   Claims 2, 10-13, 16-19, 30-33, 35, and 43-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brandle et al. (U.S. 5,146,593) in view of Admitted Prior Art (APA) further in view of Wadhwa et al. (U.S. 6,389,588 B1).

As to claim 2, Brandle does not explicitly teach creating a shared library including the entry point function associated with the graphical program. Brandle teaches the system library procedures can be rewritten and the service tables can be modified/updated to update the changes (The system and method ... table updating; col. 7, lines 12-28). Wadhwa teaches a shared library is created from an existing application (The step of translation 37 of the legacy program ... dynamic link libraries; col. 4, line 37 – col. 7, line 52). It would have been obvious to apply the teaching of Wadhwa to the system of Brandle to create a shared library that can be use by multiple programs.

As to claim 10, Brandle as modified teaches (col. 2, line 58 – col. 4, line 2) the graphical program has an associated input (parameters expected by the procedure), a functional interface for the graphical program (service table 20), the functional interface maps the graphical program input to an input parameter (the service tables 20 ... provide a mapping ... data structures), creating the shared library comprises creating an entry point function in accordance with the functional interface (service director 12).

As to claim 11, see rejection of claim 10 above except output parameter is specified instead of input parameter.

As to claim 12, Brandle does not explicitly teach creating the shared library comprises excluding a portion of the graphical program that is not necessary for execution. Wadhwa teaches creating the shared library comprises excluding a portion of the graphical program that is not necessary for execution (locate or extract the business rules; col. 4, line 37 – col. 7, line 52). It would have been obvious to one of ordinary skill in the art to apply the teaching of Wadhwa to

the system of Brandle because it would provide a method to create a shared library with only

useful functions.

As to claim 13, Brandle as modified does not teach the excluded portion comprises

information consisting of user interface display information and block diagram information.

Wadhwa teaches only business rules are extracted (locate or extract the business rule; col. 4, line

37 – col. 7, line 52). It would have been obvious to apply the teaching of Wadhwa to the system

of Brandle to exclude the user interface display information and block diagram information

because they are system specific.

As to claim 16, Wadhwa teaches (col. 4, line 37 – col. 7, line 52) selecting a program

(the original legacy application 17 is analyzed), creating a shared library comprising the program

(dynamic link library). However, Wadhwa does not explicitly teach a graphical program,

specifying a function interface for the graphical program, and the shared library includes a

function created according to the functional interface. APA teaches executing a graphical

program through a shared library (Previous approaches to enabling graphical programs to be

called using shared libraries ... graphical program; page 5). It would have been obvious Wadhwa

could select a graphical program to create a shared library. Brandle teaches (col. 2, line 58 – col.

4, line 2) a function interface for the program (service table 20), and the shared library includes a

function created according to the functional interface (service director 20). It would have been

obvious to apply the teaching of Brandle to the system of Wadhwa because it would provide a

computer system interface which allows programs to call common library procedures without

regard to calling conventions used by the language in which such procedures were originally

written.

As to claim 17, see rejection of claims 10 and 11 above.

As to claim 18, it is the same as the claim 17 above except the automatically mapping is used instead of a user specify a mapping.

As to claim 19, see rejection of claim 3 above.

As to claim 30, see rejections of claims 16 and 20 above.

As to claims 31-33, see rejections of claims 17-19 above.

As to claim 35, see rejection of claim 2 above.

As to claims 43-46, see rejections of claims 10-13 above.

Response to Arguments

6.   Applicant's arguments filed 6/2/2003 have been fully considered but they are not persuasive.

Claims 1, 20, and 34

As to Applicant's arguments (pages 11-12) regarding the prior art does not teach or suggest calling an entry point function of a shared library, where this entry point function directly invokes the graphical program. Examiner does not agree because Brandle teaches most of the limitations of claim 1 (see rejection of claim 1), the only limitation Brandle does not teach is the graphical program. APA is used to teach a graphical program can be executed through a shared library and included in a shared library. It would have been obvious the graphical program taught by APA could be included in the shared library of Brandle's system. Therefore, the combination of Brandle and APA teaches all the limitation of claim 1.

Applicant further argues that Brandle patent and prior art relating to graphical programs are not analogous due to the very different nature graphical programs and text based programs.

However, Applicant simply argues without giving any supports, explanations, and/or reasons why and what are the different natures between graphical and text based programs that making the combination are not analogous. Thus, the arguments are not persuasive. Furthermore, they are analogous because both text based programs and graphical based programs can be built into libraries and executed through a shared library from a text based program.

Claims 16 and 30

As to Applicant's argument regarding the prior art does not teach the limitations of claim 16. Applicant is directed to previous discussion regarding the graphical program. Since Wadhwa teaches a program can be built into a dynamic link library, and APA teaches a graphical program is included in a shared library and can be executed through a shared library. It would have been obvious one of ordinary skill in the art could build a graphical program into a dynamic link library using the technique taught by Wadhwa. Therefore, claim16 is taught by Brandle, APA and Wadhwa.

Conclusion

7.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Diem K Cao whose telephone number is (703) 305-5220. The

examiner can normally be reached on Monday - Friday, 9:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, John Follansbee can be reached on (703) 305-8498. The fax phone numbers for the

organization where this application or proceeding is assigned are (703) 308-6296 for regular

communications and (703) 305-9731 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is (703) 305-3900.

Any response to this action should be mailed to:
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Or fax to:
- AFTER-FINAL faxes must be signed and sent to (703) 746-7238.
- OFFICIAL faxes must be signed and sent to (703) 746-7239.
- NON-OFFICIAL/DRAFT faxes should not be signed, please send to (703) 746-7140.

Diem Cao
July 10, 2003

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